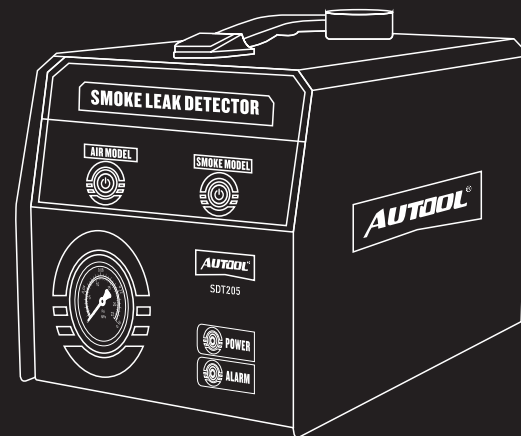


AUTOOL®

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AUTOOL SDT205 Smoke Leak Detector

User Manual



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注意事项

重要的安全说明

- 非技术人员不得更改，拆卸或维修产品，否则由此造成的所有损失应由用户自己承担。
- 本产品由电源供电，不应用作儿童玩具。
- 为避免短路，请勿将产品浸入水或其他液体中。
- 请尝试按标准使用制造商提供的电源和电源线。
- 不使用本产品时，请勿使其暴露于强光或高温下。
- 远离烟雾敏感部件以进行泄漏检测，例如前照灯。
- 首次使用此检测器时，请加注5-10ml油，不要超出此范围。
- 仅在点燃烟雾时才可以加满新鲜的油，不要一次将过量的测试油添加到量瓶的体积中，每次10毫升就足够了。否则会影响排烟设备。
- 定期更换检测器油。加注新油之前，请先将检测器中残留的旧油倒出。
- 探测器油的选择：液体石蜡和婴儿油都可以。但是请确保里面没有水，并且禁止使用粘性液体。

- 测试设备具有温度保护器。如果机器长时间连续运行，则会在过热后自动停止并提供保护。此时，气泵正常工作，加热系统停止工作，当温度降至合理温度时，设备恢复正常运行。如果需要连续工作，则在工作5分钟后，应关闭设备3-5分钟。
- 用户可以在设备的外部使用强气流来冷却设备，但不要直接使用液体进行散热。

①: 表示操作设备时需引起注意的地方。

▲: 表示在操作使用中有对产品损害或人身安全的可能性。

请保存此说明书

特别说明：本说明书详细介绍了 SDT 205 系列汽车烟雾测漏仪的结构原理、功能特点、操作方法及相关配件，并对使用中的注意事项、维修保养及售后服务作了简要说明，本公司保留更改产品设计与规格的权利，实物配置以产品装箱单内容为准。

产品介绍

欢迎使用深圳偶然科技有限公司生产的 SDT205 汽车烟雾测漏仪，该系列产品是一款专业的汽车管道泄漏检测工具。诊断泄漏检测仪可在任何密封系统中利用可视烟雾系统快速定位难以发现的泄漏点，比如EVAP系统、进气系统、排气系统、风和水泄漏、增压空气冷却器、涡轮增压器、管道、配件、软管和很多其它部件。帮助技师一次性快速解决问题，显著消除了车辆的重复返修，大幅减少诊断时间并提升客户服务，有效减少质保成本。

功能与特点

主要功能

- **密封性测试功能：**可测试被测管道在系统压力下的密封性和泄漏情况。
- **进气系统测试功能：**可测试进气系统中管道的密封性和破损程度。
- **EVAP系统测试功能：**可测试EVAP系统中燃油蒸发的泄漏情况。

主要特点

- 采用烟雾发生器技术，烟雾稳定，输出量大，并且不影响汽车上的电子器件。
- 内置空气压缩机，可随时进行测试和维修。

- 紧凑、轻量化设计，可任意放置设备进行工作。
- 烟雾测试油，无毒无害，不具有腐蚀性。

技术指标及工作环境

技术指标：

- 电源：DC12V±2
- 输出压力：15psi，≈1kg/cm²
- 输出烟雾：1-6L/min
- 外形尺寸：350x235x300mm
- 整机重量：5.5kgs

工作环境：

- 环境温度：-10℃~+40℃
- 相对湿度：<85%
- 周围2m以内严禁明火

结构组成

结构示意图如下所示：

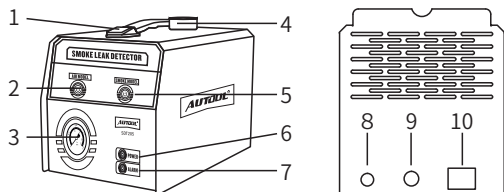


fig.01 结构示意图

1-提手；2-空气模式控制键；3-压力表；4-加油口；5-烟雾模式控制键；6-电源灯；7-保护灯；8-放油口；9-出烟口；10-电源接口。

①注意：本手册图片与实物可能有轻微分别，选择均以实物为准。

安装与连接

简单安装

- 拆箱后将机子搬至台面上，并将机子反转至背面一方。
- 从配件盒中取出电源线装在电源接口上。
- 从配件盒中取出烟雾导管装在出烟口上。

简单连接

- 电源连接: 将电源线的正负极连接在车载电池正负极上。

操作过程

进气系统测试方法与步骤

- 将空气滤芯盖板打开，取出空气滤芯。
- 从配件盒里取出膨胀气囊，并且持续挤压，直至气囊的膨胀直径与进气口的直径吻合。
- 拧开加油盖，倒入10ml测试油后，将加油盖拧紧。
- 打开电源开关，分别打开空气模式控制键和烟雾模式控制键。
- 堵住出烟嘴，观察压力表。
- 当压力表达达到0.8kg/cm²时，与膨胀气囊连接。
- 完成后，可查找进气系统泄漏处是否有烟雾渗出。

①注意：

- 严禁倒入测试油超过10ml，否则容易导致烟雾发生器不工作，出现不出烟的，甚至喷油的情况。
- 在使用产品长时间工作时，机子内部温度过高，保护灯亮起，请立即断开电源，停止工作。

EVAP系统测试方法与步骤

- 找到汽车上的碳罐，断开进/出油管。
- 从配件盒里取出EVAP专用适配接头，并且连接在被测油管上。
- 拧开加油盖，倒入10ml测试油后，将加油盖拧紧。
- 打开电源开关，分别打开空气模式控制键和烟雾模式控制键。
- 堵住出烟嘴，观察压力表。
- 当压力表达到0.8kg/cm²时，与EVAP专用适配接头连接。
- 完成后，可查找EVAP系统泄漏处是否有烟雾渗出。

▲ 注意：进行EVAP系统测试全过程中，严禁明火。

保养与维护

- 测试完后，擦拭拆卸下来的配件，整理好放回包装箱中。
- 将测试油放出，装回油瓶中。
- 将主机擦拭干净，检查是否有故障、接头松动以及破损。
- 装好主机及配件后，将其至于阴凉、干燥及无尘处。

① 在长时间的高温下，烟和油会氧化和变质。它会影响烟雾产生部分的使用寿命，所以请定期更换测试用油。

包装清单

- | | |
|----------------|---------------|
| ● 主机：×1 | ● 膨胀气囊：×1 |
| ● 烟雾导管：×1 | ● 电源线：×1 |
| ● EVAP工具套件：×1 | ● 烟雾发生剂加注壶：×1 |
| ● 标准锥形适配器：×8 | ● 产品使用手册：×1 |
| ● 盖塞工具锥形适配器：×1 | ● 合格证：×1 |

售后服务

售后保修：

AUTOOL 整机自客户签收日起享有3年保修期，附件1年保修期。

保修方式：

- 根据具体的故障情况对设备进行修理或更换；
- 我方保证所有更换的部件、附件或设备都是全新；
- 在客户收到产品90天内出现故障同时提供视频和图片，我方承担运费并免费提供相应配件给客户更换。收到产品超过90天，客户承担相应的费用，我方免费提供配件给客户更换；

以下情况不再免费保修范围：

- 非正规渠道购买AUTOOL的产品；
- 未按产品说明书要求使用和维护造成的损坏；

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Formal statement: The other product names mentioned in this manual are used to explain how to use this device, and the registered trademark still belongs to the original mark owner.

This equipment is designed for professional technicians or maintenance workers.

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Precautions

- If you are not a technician, please do not change, disassemble or repair the product; otherwise all the losses shall be born by the user.
- This product is powered by electricity and should not be used as a toy for children.
- To avoid a short circuit, do not put the product in water or other liquid.
- Please use the power source and power cord supplied by the manufacturer according to the standards.
- Please do not expose the product to intense light or high temperature when it's not used.
- When doing leak detection test, keep away from the smoke-sensitive parts like the headlight.
- When you use the detector, add 5-10 ml of oil into it. Please make sure the oil in the detector is no more than 10 ml.
- Replace the oil in the detector regularly. Before adding the new oil, please drain out the remaining used oil in the detector.
- Selection of the detector oil: liquid paraffin and baby oil are both usable. Please make sure there is no water in it, and please do not use any sticky liquid.

Special Notice: This instruction manual introduces the structure, working principle, functions, features, methods of operation and accessories of automotive smoke leak detector, SDT 205 series in detail. Precautions, maintenance and after-sale service are also briefly described. AUTOOL reserves the right to change the product design and specifications and the actual configurations of the product shall be the information on the packing list.

Product Description

Thank you for using the SDT205 automotive smoke leak detector produced by Shenzhen AUTOOL Technology Co., Ltd. This product series is a professional vehicle pipeline leak detection tool. With the help of the visual smoke system, this diagnostic leak detector can quickly locate difficult-to-find leaks in any closed system, such as EVAP systems, air intake systems, exhaust systems, wind and water leaks, charge air coolers, turbochargers, pipes, fittings, hoses and various other parts. It can help the mechanics solve the problems efficiently, reduce the repeat repairs of vehicles significantly, save a lot of time for diagnosis, improve customer service and cut down warranty expense effectively.

Main Functions

- **Air Tightness Test:** check air tightness of the pipeline and leakage under the system pressure.
- **Air Intake System Test:** check tightness of the pipeline and its degree of damage

- **EVAP System Test:** check the fuel evaporation leakage of the EVAP system

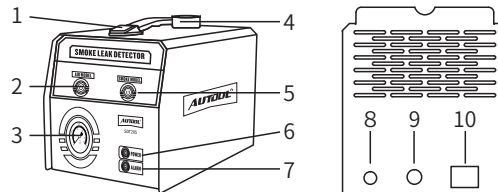
Technical Indicators

- Power supply: DC12V \pm 2
- Output pressure: \approx 1kg/cm²
- Output smoke: 1-6L/min
- Dimensions: 350x235x300mm
- Total weight: 5.5kgs

Working Environment

- Ambient temperature: -10 °C ~ +40 °C
- Relative humidity: <85%
- No open fire within 2 meters of radius in the surrounding area.

Structure



- 1-Handle; 2-Air mode; 3-Pressure gauge; 4-Oil filler port; 5-Smoke mode; 6-Power indicator; 7-Overheating indicator; 8-Oil draining outlet; 9-Smoke outlet; 10-Power interface

Easy Installation

- After unpacking, please move the machine onto the table and turn the machine to the back side.
- Take out the power cord from the accessory box and connect it to the power interface.
- Take out the smoking hose from the accessory box and connect it onto the smoke outlet.

Easy Connection

- Power connection: Connect the positive and negative poles of the power cord to the positive and negative poles of the car battery.

Operational Steps

Operational Steps for Air Intake System Test

- Open the air filter cover and take out the air filter.
- Take out the inflatable bladder from the accessory box and continue to squeeze it until the inflated diameter of the rubber bladder matches the diameter of the air inlet.
- Remove the oil filler cap, add 10ml of test oil into it, and tighten the cap.
- Turn on the power switch. Then press the air mode button and the smoke mode button respectively.
- Block the smoke nozzle and watch the pressure gauge.
- When the pressure reaches 0.8kg / cm², please connect it to the inflatable bladder.
- After that, you can find out if there is smoke coming out from the leak point of the air intake system.

Attention:

It is Not recommended to add more than 10ml of the test oil into the detector; otherwise it will make the smoke generator stop working, and there will be no smoke coming out or even oil spill.

When the product is used for a long time, the internal temperature of the machine is too high and the overheating protection indicator will be turned on. Please disconnect the power supply immediately to make the device stop working.

Operational Steps for EVAP System Test

- Find the carbon canister on the car, and disconnect the fuel inlet/outlet tubing.
- Take out the special adapter for EVAP system from the accessory box and connect it to the tubing you want to test.
- Remove the oil filler cap, add 10ml of test oil into it, and tighten the cap.
- Turn on the power switch. Then press the air mode button and the smoke mode button respectively.
- Block the smoke nozzle and watch the pressure gauge.
- When the pressure reaches 0.8kg / cm², connect the smoke nozzle with the special adapter for EVAP system.
- After that, you can find out if there is smoke coming out from the leak point of the EVAP system.

Attention:

Please make sure there are no open flames in the process of EVAP system test.

Maintenance

- After the test, remove and clean the accessories. Then put them back into the box.
- Drain the test oil out and pour it back into the oil bottle.
- Clean the main unit and check if there is any fault, loose connection or damage.
- After the installation of the main unit and the accessories, please keep them in a cool, dry and dust-free place.
- Smoke and oil will oxidize and deteriorate after being in high temperature for a long time, which will affect the service life of the smoke generator. Please change the test oil regularly.

Packing List

- Main unit: × 1
- Inflatable bladder: × 1
- Smoke hose: × 1
- Power cord: × 1
- EVAP tool kit: × 1
- Smoke fluid filling bottle: × 1
- Standard cone adapter: × 8
- User manual: × 1
- Plug cone adapter: × 1
- Certificate of conformity: × 1

After-sale Service

- From the date of receipt, we provide a 3-year limited warranty for the main unit, and 1-year limited warranty for the accessories.
- We offer repair service or replacement according to the specific type of the fault.
- We guarantee that all the parts, accessories and device for replacement are brand new.

- AUTOOL will bear the shipping cost and offer the corresponding accessories for replacement without charge if the customer sends us video and pictures of the product that fails within 90days after receipt.
- If the product has been received for more than 90 days, we will provide the spare parts for replacement without charge but the buyer is supposed to bear the other relevant costs.

The warranty is void if the product is

- Bought through non-official channel.
- Damaged because of improper use or maintenance, not following the user manual.

Declaration: Please note that AUTOOL reserves the right to change product designs and specifications without notice. Images or descriptions in this manual are for illustration purposes only. Actual products may vary in terms of appearance and color. We are always trying to offer an accurate user manual, but we can hardly guarantee that there is absolutely no difference. The right of the final interpretation of the products belongs to AUTOOL, and we will not be liable to any loss or damage caused by misunderstanding